

MAQTQGTRRKVCYYYDGDVGNYYYGQGHMPKPHRIRMTHNLLN
YGLYRKMEIYRPHKANAEEMTKYHSDDYIKFLRSIRPDNMSEYSKQMQRFNVGEDCPV
FDGLFEFCQLSTGGSVASAVKLNKQQTDAVNWAGGLHHAKKSEASGFCYVNDIVLAI
LELLKYHQRVLYIDIDIHHGDGVVEAFYTTDRVMTVSFHKYGEYFPGTGDLRDIGAGK
GKYAVNYPLRDGIDDESIEAIFKPVMSKVMEMFQPSAVVLQCGSDSLSGDRLGCFNL
TIKGHAKCVEFVKSFNLPMLMLGGGGYTIRNVARCWYETAVALDTEIPNELPYNDYF
EYFGPDFKLHISPSNMTNQNTNEYLEKIKQRLFENLRMLPHAPGVQMQAIPEDAIPPE
SGDEDEDDPDKRISICSSDKRIACEEEFSDSEEEGEGGRKNSSNFKKAKRVKTEDEKE
KDPEEKKEVTEBEKTKEEKPEAKGVKEEVKLA (SEQ ID NO:1)

FIGURE 1A

00047539.032604
10920.822700

00047539.032604
F09220.032604

```
1 atgtctgggg tctctgccc ctggtgctgc tgtctcccac tcggtcztcc tgaacacac
61 gcctgagcgt ctctgtcact cggggtagac cagcgggga ggcgagcaag atggcgacag
121 cgcagggcac cggagggaaa gtctgttact actacgacgg ggatgttggg aattactatt
181 atggacaagg ccaccaatg aagcctcacc gaatccgcat gactcataat ttgtgtctca
241 actatggtct ctaccgaaa atggaaatct atcgccctca caaagccaat gctgaggaga
301 tgaccaagta ccacagcgt gactacatta aattcttgcg ctccatccgt ccagataaca
361 tgtcggagta cagcaagcag atgcagagat tcaacgttgg tgaggactgt ccagtattcg
421 atggcctgtt tgagttctgt cagttgtcta ctggtggttc tgtggcaagt gctgtgaaac
481 ttaataagca gcagacggac atcgctgtga attgsgctgg gggcctgcac catgcaaga
541 agtccgaggg atctggcttc tgttacgtca atgatacgt ctggccaac ctggaactgc
601 taaagtatca ccagaggggtg ctgtacattg acattgatat tcaccatggg gacggcgtgg
661 aagaggcctt ctacaccacg gaccgggtca tgactgtgtc ctttcataag tatggagagt
721 acttcccagg aactggggac ctacgggata tcggggctgg caaagccaag tattatgctc
781 ttaactaccc gctccgagac gggattgatg acgagtccta tgaggccatt ttcaagccgg
841 tcatgtccaa agtaatggag atgttccagc ctagtgcggg ggtcttacag tgtggctcag
901 actccctatc tggggatcgg ttaggttgc tcaatctaac tatcaaaagg cacgccaagt
961 gtgtgggaat tgtcaagagc cttaacctgc ctatgctgat gctgggaggc ggtggttaca
1021 ccattcgtaa cgttgcccgg tgcgggacat atgagacagc tgtggccctg gatacggaga
1081 tccctaata gcttccatcc aatgactact ttgaatactt tggaccagat ttcaagctcc
1141 acatcagtc ttccaatatg actaaccaga acacgaatga gtacctggag aagatcaaac
1201 agcgactgtt tgagaacctt agaattgctgc cgcacgcacc tgggggccaa atgcaggcga
1261 ttctctgagg cgcctcctct gaggagagtg cgcgtgagga cgaagacga cctgacaagc
1321 gcattctgat ctgctcctct gacaaacgae ttgctcttga ggaagagttc tccgattctg
1381 azgaggaggg agaggggggc cgcagaagaact ctccaactt caaaaagcc aagagagtca
1441 aaacagagga tgaaaaagag azagaccacg aggagagaa agaagtcacc gzagaggaga
1501 aaaccaagga ggagaagcca gaagccaaag ggtcaagga ggaagtcagg ttgacctgaa
1561 tggacctctc cagctctggc ttctctctga gtccctcacg ttctcttccc c (SEQ ID NO: 2)
```

FIGURE 1B

MAYSQGGGKKKVCYYYDGDIGNYYYGQGHMPKPHRIRMTHNLLL
NYGLYRKMEIYRPHKATAEEMTKYHSDEYIKFLRSIRPDNMSEYSKQMHIFNVGEDCP
AFDGLFEFCQLSTGGSVAGAVKLNRRQQTDMAVNWAGGLHHAKKYEASGFCYVNDIVLA
ILELLKYHQRVLYIDIDIHHGDGVVEAFYTTDRVMTVSFHKYGEYFPGTGDLRDIGAG
KGKYYAVNFPMCDGIDDESYGQIFKPIISKVMEMYQPSAVVLQCGADSLSGDRLGCFN
LTVKGHAKCVEVVKTFNLPLMLGGGGYTIRNVARCWTYETAVALDCEIPNELPYNDY
FEYFGPDFKLHISPSNMTNQNTPEYMEKIKQRLFENLRMLPHAPGVQMQAIPEDAVHE
DSGDEGEDPDKRISIRASDKRIACDEEFSDSEDEGEGGRNVADHKKGAKGARIED
KKETEDIKKTDVKEEDKSKDNSGEKTDTKGKSEQLSNP (SEQ ID NO:3)

FIGURE 2A.

00047530-032504
F03220-00047530

00547530.023604
T05E02.023604

```

1  cgccgagctt  tcggcacctc  tgccgggtgg  taccgagcct  tcccggcgcc  cctcctcttc
61  ctcccaccgg  cctgcccttc  cccgcgggac  tatcgcccc  acgtttccct  cagccctttt
121 ctctcccggc  cgagcccgcg  cggcagcagc  agcagcagca  gcagcaggag  gaggagcccg
181 gtggcgggcg  tggccgggga  gcccatggcg  tacagtcaag  gaggcggcaa  aaaaaaagtc
241 tgctactact  acgacgggtga  tattggaaat  tattattatg  gacagggtca  tcccatgaag
301 cctcatagaa  tccgcatgac  ccataacttg  ctgttaaat  atggcttata  cagaaaaatg
361 gaaatatata  ggccccataa  agccactgcc  gaagaaatga  caaaatatca  cagtgtatgag
421 tataaccaat  ttctacggtc  aataagacca  gataacatgt  ctgagtatag  taagcagatg
481 catatattta  atgttgagga  agattgtcca  gctttgatg  gactctttg  gttttgtcag
541 ctctcaactg  gcggttcagt  tgctggagct  gtgaggtta  accgacaaca  gactgatatg
601 gctgttaatt  gggctggagg  attacatcat  gctaagaaat  acgaagcatc  aggtattctgt
661 tacgttaatt  atattgtgct  tgccatcctt  gaattactaa  agtatcatca  gagagtctta
721 tatattgata  tagatattca  tcatggtgat  ggtgttgaag  aagcttttta  tacaacagat
781 cgtgtaattga  cggtatcatt  ccataaatat  ggggaatact  ttctggcac  aggagacttg
841 agggatattg  gtgctggaaa  aggcataatc  tatgctgtca  attttccaa  gtgtgatggg
901 atagatgatg  agtcatatgg  gcagatattt  aagcctatta  tctcaaagg  gatggagatg
961 tatcaacct  gtgctgtggt  attacagtg  ggtgcagact  cattatctg  tgatagactg
1021 ggttggttca  atctaaccgt  caaagggtcat  gctaaatgtg  tagaagtgt  aaaaaactttt
1081 aacttaccat  tactgatgct  tggaggagg  ggctacacaa  tccgtaatgt  tgctcgatgt
1141 tggacatatg  agactgagct  tgcccttgat  tggagattc  ccaatgagtt  gccatataat
1201 gattactttg  agtattttg  accgacttcc  aaactgcata  ttagtccct  aaacatgaca
1261 aaccagaaca  ctccagaata  tatggaaaag  ataaaacagc  gtttgtttg  aaatttgccg
1321 atgttacctc  atgcacctgg  tgtccagatg  caagctattc  cagaagatgc  tgttcatgaa
1381 gacagtggag  atgaagatgg  agaagatcca  gacaagagaa  ttctatttc  agcatcagac
1441 aagcggatag  ctgtgtatga  agaattctca  gattctgagg  atgaaggaga  aggaggtcga
1501 agaaatgtgg  ctgatcataa  gaaaggagca  aagaagcta  gaattgaag  agataagaaa
1561 gaaacagagg  acaaaaaaac  agacgttaag  gaagagata  aatccaagg  caacagtggg
1621 gaaaaaacag  ataccaaaag  aaccaaatca  gaacagctca  gcaacccctg  aatttgacag
1681 tctcaccaat  ttcagaaaat  cattaaaaag  aaaatattga  aaggaaaatg  ttttctttt
1741 gaagacttct  ggctccattt  tatactactt  tggcatggac  tctatttatt  tcaaatggg
1801 actttttcgt  tcttggtttt  ctgggcaagt  tttattgtga  gattttcraa  tcatgaagca
1861 aaattttctt  tctccaccat  gctttatgtg  atagtattta  aaatcgatgt  gagtatttat
1921 gtcaaaaaaa  ctgatctatt  aaagaagtaa  ttggccttcc  tgagctgaaa  aaaaaaazaa
1981 aaaaag (SEQ ID NO: 4)

```

FIGURE 2B

MAKTVAYFYDPDVGNFHYGAGHPMKPHRLALTHSLVLHYGLYKK
MIVFKPYQASQHDMCRFHSEDIYDFLQRVSPTNMQGFTKSLNAFNVGDDCPVFPGLFE
FCSRYTGASLQGATQLNNKICDIAINWAGGLHHAKKFEASGFCYVNDIVIGILELLKY
HPRVLYIDIDIHHGDGVQEA FYLTDRVMTVSFHKYGN YFFPGTGDMYEVGAESGRYYC
LNVPLRDGIDDQSYKHLFQPVINQVVD FYQPTCIVLQCGADSLGCDRLGCFNLSIRGH
GECVEYVKSFNIPLLVLGGGGYTVRNVARCWYETSL LVEEAISEELPYSEYFEYFAP
DFTLHPDVSTRIENQNSRQYLDQIRQTIFENLKM LNHAPSVQIHDVPADLLTYDRTDE
ADAEERGPEENYSRPEAPNEFYDGDHNDKESDVEI (SEQ ID NO:5)

FIGURE 3A

00047539-000004

00047530.032504

1 ggaattcgcg gccgcggcgg gcgcgggagg tgcggggcct gctcccgcgc gaccatggc
61 caagaccgtg gccatattct acgaccccca cgtgggcaac tccactacg gagctggaca
121 cccatgaag ccccatcgcc tggcattgac ccatagcctg gtcctgcatt acggtctcta
181 taagaagatg atcgtcttca agccatacca ggcctcccaa catgacatgt gccgcttcca
241 ctccgaggac tacattgact tcctgcagag agtcagcccc accaatatgc aaggcttcac
301 caagagtctt aatgccttca acgtaggcga tgactgcccc gtgtttcccg ggtctctga
361 gttctgctcg cgttacacag gcgcattctct gcaaggagca acccagctga acaacaagat
421 ctgtgataat gccattazct gggctggtgg tctgcacccat gccaaagaag ttgaggcctc
481 tggctctcgc tatgtcaacg acattgtgat tggcctcctg gagctgctca agtaccaccc
541 tcgggtgctc tacattgaca ttgacatcca ccatggtgac ggggttcaag aagcttctta
601 cctcactgac cgggtcatga cgggtgctct ccacaaatgc ggaaattact tcttccctgg
661 cacaggtgac atgtatgaag tcggggcaga gagtggccgc tactactgtc tgaacgtgcc
721 cctgcgggat ggcattgatg accagagtta caagcacctt tccagcccg ttatcaacca
781 ggtagtggac ttctaccaac ccacgtgcat tgtgctccag tgtggagctg actctctggg
841 ctgtgatcga ttgggctgct ttaacctcag catccgaggg catggggaa: scgttgaata
901 tgtcaagagc ttcaatatcc ctctactcgt gctgggtggg ggtggttata ctgtccgaaa
961 tgttgccgcg tgcctggacat atgagacatc gctgctggta gaagaggcca ttagttagga
1021 gcttccctat agtgaatact tcgagtactt tgccccagac ttcacacctc atccagatgt
1081 cagcaccgcg atcgagaatc agaactcacg ccagtatctg gaccagatcc gccagacaat
1141 ctttgaanaac ctgaagatgc tgaacctgc accatgtgtc cagattcatg acgtgcctgc
1201 agacctcctg acctatgaca ggactgatga ggctgatgca gaggagaggg gtccctgagga
1261 gaactatagc agggccagag caccatga gtctatgat ggagaccatg acaatgacaa
1321 ggaaagcgat gtggagattt aagagtggct tgggatgctg tctcccaagg aatctctttt
1381 cacctcttg aagggtgga gggaaaagga gtggctccta ggtcctggg ggtcaccoca
1441 ggggcttttg ctgactctgg gaaagagtct ggagaccaca tttggttctc gaacctcta
1501 cctgcttttc ctctctctcc caaggactga caatggtacc battagggat gagatacaga
1561 caaggatagc tatctgggac attattggca gtgggcccctg gaggcagtc ctagcccccc
1621 ttgcccccta tttctccctt gcttccctcg aaccagaga ttttgaggg atgaacgggt
1681 agacaaggac tgagattgcc tctgacttcc tctccctctg ggtcttgacc tctctcttcc
1741 ccttgcttcc agggaaagatg aagagagaga gatttggag ggtctctgct tccctaacac
1801 ctgaatccca gatgatggga agtatgtttt caagtgtgg gaggatctga aatgttctg
1861 ctctcacttt tggctctatg tccattttac cactgttttt atccaataaa ctaagtctgt
1921 atttcttgta cctttgatgg ttttagcgcc gcg: (SEQ ID NO: 6)

FIGURE 33

00017530-032604

MLAMKHQQELLEHQKLERHRQEQELEKQHREQKLQQLKNKEKG
KESAVASTEVMKMLQEFVLNKKKALAHRLNLNHCISSDPYWGKTQESSLDQSSPPQS
GVSTSYNHPVLGMYDAKDDFPLRKTASEFNLKLSRLKQKVAERRSSPLLRRKDGPPV
TALKKRPLDVTDSACSSAPGSGPSSPNSSGSVSAENGIAPAVPSIPAETSLAHLVA
REGSAAPLPLYTSPSLPNITLGLPATGPSAGTAGQQDTERLTLPALQQRLSLFPGTHL
TPYLSTSPLERDGGAAHSPLLQHMVLEQPPAQAPLVTGLGALPLHAQSLVGADRVS
SIHKLQRHRPLGRTQSAPLPQNAQALQHLVIQQQHQQFLEKHKQQFQQQQQLQMNKIIP
KPSEPARQPESHPEETEEELREHQALLDEPYLDRLPGQKEAHAQAGVQVKQSPIESDE
EEAEPPREVEPGQRQPSEQELLFRQQALLLEQQRIHQLRNYQASMEAAGIPVSFGGHR
PLSRAQSSPASATFPVSVQEPPTKPRFTTGLVYDTLMLKHQCTCGSSSSSHEHAGRIQ
SIWSRLQETGLRGKCECIRGRKATLEELQTVHSEAHTLLYGTNPLNRQKLDKLLGS
LASVFVRLPCGGVGVDSDTIWFEVHSAGAARLAVGCVVELVFKVATGELKNGFAVVRP
PGHHAESTPMGFCYFNSVAVAAKLLQQRLSVSKILIVDWDVHHGNGTQQAFYSDPSV
LYMSLHRYDDGNFFPGSGAPDEVGTGPGVGFNVMMAFTGGLDPPMGDAEYLAAFRTVV
MPIASEFAPDVVLVSSGFDAVEGHPTPLGGYNLSARCFGYLTKQLMGLAGGRIVLALE
GGHDLTAICDASEACVSALLGNELDPLPEKVLQQRPNANAVRSMEKVMJEJRSKYWRCL
QRTTSTAGRSLIEAQTCENEEAETVTAMASLSVGKPAEKRPDEEPMEEEPPL (SEE ID NO: 7)

FIGURE 4A

0047539.032604

1	ggaggttctg	gggcccgcgc	cgcgagacac	cgtccccgc	gccgcccag	cccgagccgc
61	agccccgcga	cccgccccgc	ccgcccgcgc	cgccccgcga	acagcctccc	agcctgggccc
121	cccgggcgcg	ccgtggcgcg	gtccccgctg	tcgcccgcgc	agccccagcc	cgcgccgcgc
181	cggttgccgc	cgagggctga	ggagatgcgc	cgcgagcgcc	cgagagcagg	ctagagccgc
241	ccgcccgcgc	ccgcccgcgc	aagcgagcc	ccgcccgcgc	gccgcccgc	cattgtccgc
301	cgccccgcgc	gcgccccgc	cagcctgcag	gccttgagc	ccgcccgcgc	tggaagccgc
361	cggtccacac	ccgccccgc	cgcgccgcgc	ggagggcggg	gccagcgctg	gccgcccgc
421	gtgggaccgc	ccggtcccc	gggcccgcgc	gccccctctg	gacctttcca	ccgcccgcgc
481	gagcgccctt	cgccccgcgc	ggcgggggcg	cgggggggcg	cacggcaggc	agcgccgcgc
541	tcctcccggtg	cgggggcgcg	gccccccgag	cagggttcac	tcgagaagcc	agcgagcgcc
601	tcgtttcaac	ttgtgggtta	cctggctcat	gagaccttgc	cgcgagggct	cgcgccctga
661	acgctctgta	cccagccctc	accgtcccgc	tacttctatg	tggtgggtgg	agtttggtgc
721	tcgttgagc	tatcgtttcc	gtgaaaattt	tgagccattt	cgaatcactt	aaaggagtgg
781	acgttgctag	caatgagctc	ccaaagccat	ccagatggac	ttcttgccgc	agaccagcca
841	gtggagctgc	tgaaatccctg	ccgcttgaa	cacatgccca	gcagggtgga	tggtggccag
901	gcgctgcctc	tgcaagtggc	ccccctggca	gtgcccattg	acctgcccct	ggaccaccag
961	ttctcactgc	ctgtggcaga	gcccggccctg	cgggagcagc	agctgcagca	ggagctctctg
1021	gcgctcaagc	agaagcagca	gatccagagg	cagatccctc	tcgctgagtt	ccagaggcag
1081	cacgagcagc	tcctcccgga	gcagcaggcg	cagctcccag	agcacatcaa	gcaataacag
1141	gagatgctgg	ccatgaagca	ccagcaggag	ctgctggaa	accagcgga	gctggagagg
1201	cacggccagg	agcaggagct	ggagaagcag	caccggggagc	agaagctgca	gcagctcaag
1261	aacaaggaga	agggcaaaaga	gagtgccttg	gccagcacag	aagtgaagat	gaagttacaa
1321	gaatttctcc	tcaataaaaa	gaaggcgctg	gcccaccgga	atctgaacca	ctgcatctcc
1381	agcgaccctc	gctactggta	cgggaaaaacg	cagcacagtt	cccttgacca	gagtttcca
1441	ccccagagcg	gagtgtcgac	ctctataaac	caccgggtcc	tggaatgtat	cgagccaaa
1501	gatgacttcc	ctcttaggaa	aacagcttct	gaaccgaatc	tgaaattacg	gtccaggcta
1561	aagcagaaa	tgcccgaaa	acggagcagc	ccccgtttac	gcaggaaga	cgggccagtg
1621	gtcactgctc	taaaazagcg	ctcggtggat	gtcacagact	cccgctgagc	cagcgcccca
1681	ggctccggac	ccagctcacc	caacaacagc	tcggggagcg	tcagcgcgga	gaacggatc
1741	gcgcccgcgc	tcctccagcat	cccgccggag	acgagtttgg	cgcacagact	tggtggcagc
1801	gaaggtctgg	ccgctccact	tcctctctac	acatcgccat	ccttgcccaa	cactccgctg
1861	ggcctgcctg	ccaccggccc	ctctgcccgc	acgscggggc	agcaggatcc	cgagagactc
1921	acccttcccg	ccctccagca	gaggctctcc	cttttccccc	gcacccacct	cactccctac
1981	ctgagcacc	cgcccttgga	gcgggacgga	ggggcagcgc	acagccctct	cttgagcagc
2041	atggtctctac	tgagcagcc	accggcataa	gcacccctcg	tcacagccct	gggagcactg
2101	ccccctccag	cacagtcctt	gggttggtga	gaacgggtgt	ccccctccat	ccacaagctg
2161	cggcagcacc	gcccactggg	gcgggacccag	tcggccccgc	tgccccagaa	cgccccaggt
2221	ctgcagcacc	tggtcatcca	gcagcagcat	cagcagtttc	tggaazaaac	caagcagcag
2281	ttccagcagc	agcaactgca	gatgaacaa	atcatcccca	agccaagcga	gccagcccg
2341	cagccggaga	gccacccgga	ggagacggag	gaggagctcc	gtgagcacca	ggctctgctg
2401	gacgagccct	acctggaccg	gtgcccgggg	cagaaggagg	cgcacgcaca	ggccggcgctg
2461	caggtgaagc	aggagcccat	tgagagcgat	gaggaagagg	cagagccccc	acgggaggtg
2521	gagccggggc	agcgccagcc	cagttagcag	gagctgctct	tcagacagca	agccctctctg
2581	ctggagcagc	agcgatcca	ccagctgagg	aactaccagg	cgtccatgga	ggccgcccgc
2641	atccccgtgt	ccttcgycgc	ccacaggcct	ctgtcccggg	cgcagctctc	accgcgctct
2701	gcccaccttc	ccgtgtctgt	cgaggagccc	ccacccaagc	cgaggttcac	gacaggccctc
2761	gtgtatgaca	cgctgatgct	gaagcaccag	tgacactcgc	ggagtacag	cagccacccc
2821	gagcacgccc	ggagatcca	gagcatctgg	tcgcccttgc	aggagacggg	cctccggggc
2881	aaatgcgagt	gcatccgcgc	acgcaaggcc	accctggagg	agctacagac	gggtgactcg
2941	gaagccca	ccctcttgta	tgccacgaac	ccctcaacc	ggcagaaact	ggacagttaa
3001	aaactctctg	gctcgctcgc	ctccgtgttc	gtccggctcc	cttgccgttg	tggtgggtgc
3061	gacagtgaca	ccatattgaa	cgaggtgcac	tcggcggggg	cagccccctt	ggctgtgggc
3121	tgctgtggtag	agctggtctt	caaggtggcc	acaggggagc	tgaaagatgg	ccttgcctgc
3181	gtccgcccc	ctggacacca	tcgggagggag	agcacgcccc	tgggcttttg	ctacttcaac
3241	tcctgtggccg	tgccagccaa	gcttctgcag	cagaggttga	gcgtgagcaa	gactctcatc
3301	gtggactggg	acgtgcacca	tgaaaacggg	acccagcagg	ctttctacag	cgacccctagc
3361	gctctgtaca	tgctccctcca	ccgtacagac	gatgggaact	cttccccagg	cagcggggct
3421	ctcctgaggg	tgggcacagg	cccgccgctg	ggcttcaacg	tcaacatggc	cttccaccgc
3481	ggcctggacc	cccccatggg	agacgctgag	tacttggcgc	ccttcagaa	gggtgctcatg
3541	ccgatcgcca	gcgagcttgc	cccggaatgc	gtgctgggtg	cattaggctt	cgatgcccgtg

FIGURE 4B (SHEET 1 OF 3)

3601	gagggccacc	ccaccctct	tggggctac	aaactctccg	ccagatgctt	cgggtacctg
3661	acgaagcagc	tgatgggctt	ggctggcggc	cggattgccc	tggccctcga	gggaagccac
3721	gacctgaccg	ccatttgcg	cgcctcgga	gcattgcttt	ctgcccctgt	gggaacagag
3781	cttgatccct	ccctcagaaa	gggttttacag	caagaaccca	atgcgaacgc	tgcctgtcc
3841	atggagaaag	tccatggagat	ccacagcaag	tactggcgct	gcctgcagcg	cacaacctcc
3901	acagcggggc	gtctcttgat	cgaggctcag	acttgcgaga	acgaagaagc	cgagacggct
3961	accgccatgg	cctcgctgtc	cgtggcgctg	aaagccgcgc	aaaagagacc	agatgaggag
4021	cccatggaag	aggagccggc	cctgtagcac	tcctctgaag	ctgctgttct	cttgtctgtc
4081	tgtctctgtc	ttgaagctca	ccgaagaaac	tttcccgtgt	cacgcctgcg	tcccaccgtg
4141	gggtctctct	ggagcaccca	gggacaccca	gcgtgcaaca	ggccacggaa	gcctttctgc
4201	cgcccaggcc	cacaggtctc	gagacgcaca	tgcacgcctg	ggcgtggcag	cttcacaggg
4261	aacacgggac	agacccgggc	gacgcgcaga	cacacggaca	cgcggaagcc	aagcacactc
4321	tgtcggggtcc	cgcaagggac	ggcgtggaag	aaagagccct	gtggcaacag	gcggcccgagc
4381	tgccgaattc	agttaacacg	agggcacagaa	aacaaatatc	aaagatctaa	tatatcaaaa
4441	caaatctgat	taaaactggt	gcttaaaagt	tattaccacc	aactccacag	ctctctgtga
4501	aaccactcga	ctctacttgt	agcttatctt	tttcttaazg	aggacgtttt	ctacggctgt
4561	ggcccgctct	tgtgaacctt	agcgggtgtg	ggcggggggt	ctgcaccccg	gtggggggaca
4621	gaggacacct	taaagaaaac	aaaactggag	agaacacagga	atgtgagctg	ggggagctgg
4681	cttgagtttc	tcaaaagcca	tcggaagatg	cgagtttgtg	cttttttttt	tattgctctg
4741	gtcgattttt	gtggctgggt	ttctctgaagt	ctgaggaaca	atgctttaaz	aaaaaacaaa
4801	cagcaggaat	cggtgggaca	gtttcctgtg	gccagccgag	ccctgcagtg	ctggcaccgc
4861	gagctggcct	gacgcctcaa	gcacgggcac	cagccgtcat	ctccggggcc	aggggtctga
4921	gcccggcggt	cccctgtttt	cttatagtct	gtttaagaaa	aatggaggta	gttccaaaaa
4981	atgtggcaat	cccgtttggz	gtttttgaagt	ccaacaaatt	ttaaacgaat	ccaaagtgtt
5041	ctcacacgtc	acatacgatt	gagcatctcc	atctggctgt	gaagcatgtg	gtaggcacac
5101	tttcagtggt	acgatcgaaa	tgccttttta	taaaagcaag	tgcatagaag	tattgcttaa
5161	attctaggta	tazataaata	tatatatcta	tatatataat	ttcaatgtat	tccaagctaa
5221	gaaacttacc	tgattcttat	gaaatcttga	tazaaatat	ataatgcatt	tatagaazaa
5281	gtatatatat	atatataaaa	tgaatgcaga	ttgcgaagg	ccctgczaat	ggatggcttg
5341	tgaatttgct	cctaaggctg	tlatggzaag	ggaatcctgat	tgatcgaaat	ctatgttttc
5401	tcaagctcca	gattggctag	attctcagat	gcacaacacat	ctgcacactg	gcaactacc
5461	tacaagtctg	tacttccatt	ctaatttat	tctaacagaa	ccgctcccgc	ctccaagcct
5521	tcatgacacat	atgtacctaa	tgaattttta	tagcaaaaaz	tataaattt	ctgttgattt
5581	ttgtatgaat	ttttttcaaa	aaagatctct	aataagcat	tttttatgaa	tttttcarct
5641	ttcttaccaca	tttagcaatt	ttctgaatcg	taataatgtc	ttaaattctt	tcctttctga
5701	attctctgct	gtacattttt	ttttaccctt	caaaggcttt	taattatttt	tgtttctatt
5761	ttctgtacgat	gagtrctctg	cagcgtacag	aatgtgttgc	gtcagatctt	attttcagaa
5821	agtgcagaga	gggaccgtag	gtcttttcgg	agtgcacca	acgatgtgt	ctttctgggt
5881	ctgtccctagg	agctgtataa	agaagccctg	gggtcttttt	taactttcaa	cactagtagt
5941	attacagagg	gtggtgtgtt	tttcccctcc	gtgcgaagg	caggcagggt	tgtctaggat
6001	gcccggccac	cctgggaggc	ttgcccagatg	ccggggggcg	ctcagatctt	tgaaactcat
6061	gttttaacct	ctctgaccac	atcgtcagga	tagaatctta	acttgagttt	tccaagacc
6121	tttctgagcat	gtcagcaatg	catggggcac	acgtggggct	ctttaccacc	tgggtctttt
6181	ccactgcagc	cacgtcgcca	gccctggatt	ttggagccctg	tggcttcaaz	gaacccaggg
6241	acctcttgtt	cctgttgaa	cctgacggag	ggatgatttc	ctgcacagg	agaccagctg
6301	tttactcttt	ttctcttcaa	ctgaacttga	cagtcacgtt	ttacttctaa	cttatcttcc
6361	agcacatgza	gccaccagtt	tcatttcaaa	gtgtatattg	ggttctcagat	tggggcgaga
6421	agttcagaca	caccgtgtct	aggagggaac	cagagcccgz	tttccggagt	tggtaazgtt
6481	tacagggtag	actttgaaat	tazctcaaz	ctttgaccaa	atgagtgtg	acttttggat
6541	tcactttgtc	cctggctgtg	tatgtgtcag	ctctgagaca	gtggttttgg	agcaggcgaga
6601	acggctcttg	gacttgtttg	actttccctt	ccctgggtgc	cactcttttc	tctgaagccc
6661	agattggcaa	gaggagtgtg	tccattcccc	attcataggca	cagagcagtg	gcagggccct
6721	gctagcagcg	tcttctggcc	ccctggcctt	catctctctg	atagccctct	ggggactctg
6781	ccactctgcc	ctttaccggc	cctgtggctt	tggggaggaa	tgcattcaat	cactttttct
6841	ttttaagcag	atgattgggt	aacattgagt	gctcagtgcc	caggttatca	gtggggggag
6901	ttaatctctg	tctcatctaa	atggagacgc	cccttcgaaa	ggcctggcag	ggggagcgac
6961	gtttcatctg	tacagctcat	ccagcttcc	aaatgtgt		

FIGURE 4B (SHEET 2 OF 3)

7321 cagcggccac cagcaggcgg ctgtcccggg ggcggtggcc cgtggggact ggccggccct
 7381 cccagcgctc ccagggtctt ggttctggag ggccactttg tcaagggtgt ttagtctttc
 7441 tttacttctt ttgaaaatct gtttgcaagg ggaaggacca ttctgtaatg gtctgacaca
 7501 aaagcaagtt tgatttttgc agcactagca atggactttg ttgtttttct ttttgatcag
 7561 aacattccct ctttactggg cacagccacg tgctcatttc attcttcttt ttgragactt
 7621 tgggcccacg tgttttatgg gcattgatac atatataaat atatagatat aatatatat
 7681 gaatatattt ttttaagttt cctacacctg gaggttgcac ggactgtacg accggcatga
 7741 ctttatattg tatacagatt ttgcacgcca aactcggcag ctttggggaa gaagaaaaat
 7801 gcctttctgt tcccctctca tgacatttgc agatacaaaa gatggaaatt ttctgtaaa
 7861 acaaaacctt gaaggagagg agggcgggga agtttgcgtc ttattgaact tattcttaag
 7921 aaattgtact ttttattgta agaaaaataa aaaggactac ttaaacattt gtcatattaa
 7981 gaaaaaaagt ttatctagca ctgtgacat accaataata gagtttattg tattttatgtg
 8041 gaaacagtgt tttagggaat ctactcagaa ttacagtgta actgcctgtc tctctcagct
 8101 tgatttggag gaattttgtt ttgttttgtt ttgtttgttt ccttttatct ccttccacgg
 8161 gccaggcgag cgccgcccgc cctcactggc ctgtgacgg ttattcttga ttgagaactg
 8221 ggcggactcg aaagagtcct cttttccgca cagctgtgtt gactttttaa ttacttttag
 8281 gtgatgtatg gctaagattt cactttaagc agtcgtgaac tgtgcgagca ctgtggttta
 8341 caattatact ttgcacgaa agsaaaccat ttcttcattg taacgtagct gagcgtgttc
 8401 ttagctcggc ctcaacttgc ctctggcatt gattaaaagt ctgctattga aagaaaaag

(SEQ ID NO: 8)

FIGURE 4B (SHEET 3 OF 3)

00017539.032604

0001530.032501
T0520.032501

LRQGGTLTGKFMSTSSIPGCLLGVALEGDGSPHGHASLLQHVL
LEQARQQSTLIAVPLHGQSPLVTGERVATSMRTVGKLPRHRPLSRTQSSPLPQSPQAL
QQLVMQQQHQQFLEKQKQQQLQLGKILTKTGELPRQPTTHPEETEEELTEQQEVLLGE
GALTMPREGSTESESTQEDLEEEDEEEDGEEEEDCIQVKDEEGESGAEEGPDLEEPGA
GYKCLFSDAQPLQPLQVYQAPLSLATVPHQALGRTQSSPAAPGGMKSPPDQPVKHLFT
TGVVYDTFMLKHQCMCGNTHVHPEHAGRIQSIWSRLQETGLLSKCERIRGRKATLDEI
QTVHSEYHTLLYGTSPLNRQKLD SKLLGPISQKMYAVLPCGGIGVSDTVWEMHSS
SAVRMAVGCLLELAFKVAAGELKNGFAIIRPPGHHAEEESTAMGFCFFNSVAITAKLLQ
QKLVNKGKVLIVDWDIHHGNGTQQAFYNDPSVLYISLHRYDNGNFFPGSGAPEEVGGGP
GVGYNVNVAWTGGVDPPIGDVEYLTAFRITVVMPIAHEFSPDVVLVSAGFDAVEGHLSP
LGGYSVTARCFGHLTRQLMTLAGGRVVLALGGHDLTAICDASEACVSALLSVELQPL
DEAVLQQKPNINAVATLEKVIETIQSKHWSCVQKFAAGLGRSLREAQAGETEEAETVSA
MALLSVGAEQAAAAAREHSRPAEPEMEQEPAL (SEQ ID: no: 9)

FIGURE 5A

00047539.032604
T0500.0532700

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1  ccctgcgcca ggggtggcacg ctgaccggca agttcatgag cacatcctct attcctggct
61  gcctgctggg cgtggcactg gagggcgacg ggagcccca cgggcatgcc tccctgctgc
121 agcatgtgct gttgctggag caggcccgcc agcagagcac cctcattgct gtgccactcc
181 acgggcagtc cccactagtg acgggtgaac gtgtggccac cagcatgctg acggtaggca
241 agctcccgcg gcateggccc ctgagccgca ctcatcctc accgctgccc cagagtcccc
301 aggccctgca gcagctgggc atgcaacaac agcaccagca gtccctggag aagcagaagc
361 agcagcagct acagctgggc aagatcctca ccaagacagg ggagctgccc aggcagccc
421 ccacccaccc tgaggagaca gaggaggagc tgacggagca gcaggagctc ttgctggggg
481 agggagccct gaccatgccc cgggagggct ccacagagag tgagagcaca caggaaagacc
541 tgaggaggga ggacgaggaa gaggatgggg aggaggaggga ggattgcata cagggttaagg
601 acgaggaggg cgagagtggg gctgaggagg ggcccgactt ggaggagcct ggtgctggat
661 acaaaaaact gttctcagat gccagccgcg tgcagccttt gcagggtgac caggcgcccc
721 tcagcctggc cactgtgccc caccaggccc tgggcccgtac ccagtcctcc cctgctgccc
781 ctggggggcat gaagagcccc ccagaccagc ccgtcaagca cctcttcacc acagggtgtg
841 tctacgacac gttcatgcta aagcaccagt gcatgtgctg gaacacacac gtgcacctg
901 agcatgctgg ccggatccag agcatctggg cccggctgca ggagacaggc ctgcttagca
961 agtgcgagcg gatccgaggt cgcgaagcca cgctagatga gatccagaca gtgcactctg
1021 aataccacac cctgctctat gggaccagtc cctcaaccg gcagaagcta gacagcaaga
1081 agttgctcgg cccatcagc cagaagatgt atgctgtgct gccttgaggg ggcacgggg
1141 tggacagtga caccgtgtgg aatgagatgc actcctccag tgcgtgctgc atggcagtg
1201 gctgctgctt ggagctggcc ttcaagggtg ctgcaggaga gctcaagaat ggatttgcca
1261 tcatccggcc cccaggacac cagcccgagg aatccacagc catgggattc tgctcttca
1321 actctgtagc catcaccgca aaactcctac agcagaagtt gaactgaggc aagggtcctca
1381 tctgtgactg ggacattcac catggcaatg gcaccagca ggcgttctat aatgacccct
1441 ctgtgctcta catctctctg catcgctatg acaacgggaa ctctcttcca ggctctgggg
1501 ctctgaaga ggttgggtgg ggaccaggcg tggggtacaa tgtgaacgtg gcatggacag
1561 gaggtgtgga ccccccattt ggagacgtgg agtaccttac agccttcagg acagtgggtg
1621 tgcccatctg ccacagattc tcacctgatg tggctcctagt ctccgcccgg tttgatgctg
1681 ttgaaggaca tctgtctcct ctgggtgggt actctgtcct cgcagatgtt ttggccact
1741 tgaccaggca gctgatgacc ctggcagggg gcgggtgggt gctggccctg gagggaggcc
1801 atgacttgac cgcctctgtg gatgcctctg aggcctgtgt ctgggctctg ctgagctag
1861 agctgcagcc cttggatgag gcagctctgc agcaaaagcc catcttcagg gcaagtggcc
1921 cgctagagaa agtcatcgag atccagagca aacactggag ctgtcttcag agtttcggc
1981 ctggcttggg ccgggtccctg cgagagggcc aagcagggtg gacgagggg gccgagactg
2041 tgagcgccat ggccttctctg tgggtggggg ccgagcaggc ccaggtctcg gcagcccggt
2101 aacacagccc caggccggca gaggagccca tggagcaggg gccctgctct tgacgccccg
2161 gcccccatcc ccttgggctt caccattgtg atttctgtta ttttttcta: taaaaacaaa
2221 aagtcacaca ttc

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(SEQ ID NO:10)

FIGURE 5B

1 mtstgqdstt trqrrsrqnp qspqddssvt skrnikkav prsipnlaev kkkgkmkklg
 61 qameedlivg lqgmdlnlea ealagtglvl deqlnefhcl wddsfpegpe rhaiekeqli
 121 qeglldrcvs fgarfaekee lmlvhsleyi dlmnettqymn egelrvladt ydsvylhpns
 181 yscacclasgs vlrlvdavlg aeirngmaii rppghhaqhs lmdgycmfnh vavaaryaqg
 241 khrrrvliv dwdvhhgqgt qftfdqdpv lyfsihryeq grfwphlkas nwtstgfgqg
 301 qgytinvpwn qvgmrdadyi aafhvlvpv alefqqlvl vaagfdalqg dpkgemaatp
 361 agfaqlthll mglaggklii sleggynlra laegvsaslh tllgdpcpml espgapcrsa
 421 qasvscalea lepfwevlvr stetverdnm eednveesee egpweppvlp iltwplqsr
 481 tglvydqnmn nhcnlwdshh pevprilri mcrleelgla grcltltrp ateaelltch
 541 saeyvghlra tekmtrelh ressnfdsiy icpstfacaq latgaacriv eavlsgevl
 601 gaavvrppgh haeqdaacgf cffnsvavaa rhaqtisgha lrilivdwdv hhgngtqhmf
 661 eddpsvlyvs lhrydhgtff pmgdegassq igraagtgt vnvawngprm gdadylaawh
 721 rlvlpiaief npelvlvsag fdaargdplg gcqvspgya hlthllmgl sgrilileg
 781 gynltsises maactrsllg dpppltlpr pplsgalasi tetiqvhrry wrslrmkve
 841 dregpssskl vtkkapqak prlaermtr ekkvleagmg kvtsasfgee stpgqtset
 901 avvaltqdp seaatggatl aqtiseaaig gamlgqttse eavggatpdq tteetvga
 961 ildqttseda vggatlgqtt seeavggatl aqtiseaame gatldqttse eapggatliq
 1021 tplasstdhq tpptspvqgt tpqispstli gslrtlelgs esqgasesqa pgeenllgea
 1081 aggdmdadm lmqgsrgltd qaifyavtvl pwcphlvavc pipaagldvt qpcgdcgtiq
 1141 enwvclscyq vycgryingh mlqhhgnsgh plvlsyids awcyycqayv hhqalldvkn
 1201 iahqnkfged mphph (SEQ ID NO:11)

FIGURE 6A

00047528-032604

0017530.0550

1 gggcagtcct ctgaggagcg gggctgggtg aaacgctagg ggcgggatct ggcggagtg
 61 aagaaccgcg gcagggggcca agccctctca actatgacct caaccggcca ggattccacc
 121 acaaccaggc agcgaagaag taggcagaac cccagtcgc cccctcagga ctccagtgtc
 181 acttgaagc gaaatattaa aaaggagacc gtccccgct ctatcccaa tctagcggag
 241 gtaaagaaga aaggcaaat gaagaagctc ggccaagcaa tggagaaga cctaactgtg
 301 ggactgaag ggatggatct gaaccttgag gctgaagcac tggctggcac tggcttggg
 361 ttggatgagc agttaaata attccattgc ctctgggatg acagcttccc ggaaggccct
 421 gagcggctcc atgccatcaa ggagcaactg atccaggagg gcctctaga tgcctgctg
 481 tccttcagg cccgggttgc tgaaggaa gagctgatgt tggttcacag cctagaatat
 541 attgatctga tggaaacaac ccagtacatg aatgaggag aactccgtgt cctagcagac
 601 acctagact cagttatct gcacccaac tcatactct gtgcctgctt ggcctcaggc
 661 tctgtctca ggctgggtga tgcgttctg ggggtgaga tccggaatgg catggccatc
 721 attaggctc ctggacatca cggcagcac agtcttatgg atggctattg catgttcaac
 781 cagtggtctg tggcagccc ctatgctcaa cagaaacacc gcacccggag ggtccttctc
 841 gtgattggg atgtgcacca cgtcaagga acacagtca ccttcgacca ggacccagc
 901 gtctctatt tctccatcca ccgtacgag cagggtagggt tctggcccca cctgaaggcc
 961 tctaactggt ccaccacagg ttccggcca ggccaaggat ataccatcaa tgtgccttgg
 1021 aaccaggtgg ggatgcggga tctgactac attgctgctt tctgcacgt cctgctgcca
 1081 gtgcctctg agttcagcc tcagctggc ctggtggctg ctggatttga tgcctgcaa
 1141 ggggaccca agggtagat ggcgcgact ccggcagggt tgcgccagct aaccacctg
 1201 ctcatgggtc tggcaggagg caagctgac ctgtctctgg aggggtgcta caacctccg
 1261 gccctggctg aaggcgtcag tgcctgctc cacaccttc tgggagacc tgcctccatg
 1321 ctggagtcac ctggtgccc ctgcccagggt gccaggctt cagtttctg tgcctggaa
 1381 gccctgagc ccttctggga ggttctgtg agatcaactg agaccgtgga gagggacaac
 1441 atggaggagg acaatgtaga ggagagcgag gaggaaggac cctgggagcc cctgtgctc
 1501 ccaatctga catggccagt gctacagtct cgcacagggc tggcttatga ccaaaatatg
 1561 atgaatcact gcaactgtg ggacagccac caccctgagg taccacagcg catcttgcgg
 1621 atcatgtcc gtctggagga gctgggctt gccgggcgt gccacacct gacaccgcgc
 1681 cctgccacag aggtgagct gctacctgt cacagtgtg agtacgtggg tcatctccg
 1741 gccacagaga aaatgaaac ccggagctg caccgtgaga gtccaactt tgaacctc
 1801 tatactgccc ccagttctt cgcctgtgca cagcttgcca ctggcgtgc ctgcccctg
 1861 gtggaggctg tgcctcagg agaggttctg aatggtgctg ctgtggtgcg tccccagga
 1921 caccacgcag agcaggatgc agcttgcgtt tttgcttt tcaactctgt ggctgtggct
 1981 gctgccatg cccagactat cagtgggcat gccctacgga tctgattgt ggattgggat
 2041 gtccaccacg gtaatggaac tcagcacatg ttgaggatg acccagtggt gctatatgt
 2101 tccctgcacc gctatgatca tggcaccttc tccccatgg gggatgaggg tgcacgagc
 2161 cagatcgccc gggctgcggg cacaggcttc accgtcaacg tggcatggaa cgggccccgc
 2221 atgggtgatg ctgactacct agctgcctgg catcgctgg tgcctccat tgcctacgag
 2281 tttaaccag aactgggtgt ggtctcagct ggctttgatg ctgcacgggg ggatccgctg
 2341 gggggctgcc aggtgtcacc tgagggttat gccacctca cccacctgt gatgggctt
 2401 gccagtggcc gcattatct taccctagag ggtggctata acctgacatc catctcagag
 2461 tccatggctg cctgcactg ctcctctt ggagaccac caccctgtgt gacctgcca
 2521 cggccccac taccagggc cctggcctca atactgaga ccatcaagt ccatcgaga
 2581 tactggcgca gttacgggt catgaaggta gaagacagag aaggacctc cagttctaag

Figure 6B (sheet 1 of 2)

2641 ttggtcacca agaaggcacc ccaaccagcc aaacctaggt tagctgagcg gatgaccaca
 2701 cgagaaaaga aggttctgga agcaggcatg gggaaagtca cctcggcatc atttggggaa
 2761 gagtcactc caggccagac taactcagag acagctgtgg tggccctcac tcaggaccag
 2821 ccttcagagg cagccacagg gggagccact ctggcccaga ccatttctga ggcagccatt
 2881 gggggagcca tgctgggcca gaccacctca gaggaggctg tcgggggagc cactccggac
 2941 cagaccacct cagaggagac tgtgggagga gccattctgg accagaccac ctcagaggat
 3001 gctgttgggg gagccacgct gggccagact acctcagagg aggctgtagg aggagctaca
 3061 ctggcccaga ccatctcgga ggcagccatg gagggagcca cactggacca gactacgtca
 3121 gaggaggctc cagggggcac cgagctgac caaactctc tagcctcgag cacagaccac
 3181 cagaccccc caacctacc tgtcaggga actacacccc agatatctcc cagtacactg
 3241 attgggagtc tcaggacctt ggagctaggc agcgaatctc agggggcctc agaatctcag
 3301 gccccaggag aggagaacct actaggagag gcagctggag gtcaggacat ggctgattcg
 3361 atgctgatgc agggatctag gggcctcact gatcaggcca tattttatgc tgtgacacca
 3421 ctgccctggg gtccccattt ggtggcagta tggcccatac ctgcagcagg cctagacgtg
 3481 acccaacctt gtggggactg tggaacaatc caagagaatt ggggtgtct ctcttgctat
 3541 caggtctact gtggtcgta catcaatggc cacatgctcc aacaccatgg aaattctgga
 3601 caccgctgg tctcagcta catgacctg tcagcctggg gttactactg tcaggcctat
 3661 gtccaccacc aggtctcct agatgtgaag aacatcgccc accagaacaa gtttggggag
 3721 gatatgeccc acccacacta agccccagaa tacggtcct ctccacctc tgaggcccac
 3781 gatagaccag ctgtagctca ttccagcctg taccttggat gaggggtlacc ctcccactgc
 3841 atcccatcct gaatatcctt tgcaactccc caagagtgtt tatttaagt ttaatactt
 3901 taagagaact gcgacgatta attgtggatc tccccctgcc cattgcctgc ttgaggggca
 3961 ccactactcc agcccagaag gaaagggggg cagctcagtg gcccgaagag ggagctgata
 4021 tcatgaggat aacattggcg ggaggggagt laactggcag gcatggcaag gttgcatatg
 4081 taataaagta caagctgtt (SEQ ID NO. 12)

FIGURE 6B
 (Sheet 2 of 2)

109220 0052460

1 mdlrvqrrp veppteptll alqrpqrllh hlflaglqqq rsvepmrlsm dtpmpelqvg
 61 pqqelrqll hkdkskrsav assvkkqkla evilkqqaa lertvhpns gipyrtlepl
 121 etegatrsmll ssflppvpsl psdppehfpl rktvsepnk lrykpkksle rrknpllrke
 181 sappslrrp aetlgdssps ssstpasgcs spndsehgpn pilgdsdrrt hptlgprgpi
 241 lgsptplfl phglepeagg tlpsrlqpil lldpsgshap lltvpglgpl pfhfaqlmt
 301 terlsqglh wplsrtsep lppsatappp pgpmqprleq lkthvqvkr sakpsekprl
 361 rqipssaedle tdgggpgqv ddglehrelg hgqpeargpa plqqhpqvll weqqrlagrl
 421 prgstgdtvl lplaqgghrp lsraqsspaa paslsapepa sqarvlssse tpartlpftt
 481 gliydsvmk hqcscgdnsr hpehagriqs iwsrlqergl rsqceclgr kasleelqsv
 541 hserhvlyg tnplsrlkld ngklagllaq rmfemlpcgg vgvdttdiwn elhssnaarw
 601 aagsvtdlaf kvasrelkng favvrppghh adhstamgfc ffnsvaiacr qlqqqskask
 661 askilivdwd vhhngtqqt fyqdpvlyi slhrhddgnf fpgsgavdev gagsgegfnv
 721 nvawaggldp pmgdpeylaa frivvmpiar efspdlvls agfdaaeghp aplggyhvsa
 781 kcfgymtqql mnlaggavvl alegghdita icdaseacva allgnrvdpl seegwkqkpq
 841 pqchplsgr dpgaq (SEQUENCE: 13)

FIGURE 7A

1
 2
 3
 4
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1 ataataccta ccttgaggga ccacgacagg attaatgag gaaaaacccc catgagagt
 61 tttgccatt gtcaagtgag cctgagggag gctgaggggg gatcaggctg tatcatgccc
 121 ccgaggacaa actttccagt ttacctgct cctctctct gtccctaggc tgccccaggc
 181 cctgtgcaga cacaccaggc cctcagccgc agcccatgga cctgcgggtg ggccagcggc
 241 cccagtggga gccccacca gagcccat tgcctggcct gcagcgtccc cagcgcctgc
 301 accaccacct ctctctagca ggctgcagc agcagcgtc ggtggagccc atgaggctct
 361 ccatggacac gccgatgccc gatttcagg tgggaccca ggaacaagag ctgcggcagc
 421 ttctccacaa ggacaagagc aagcgaagt ctgtagccag cagcgtggtc aagcagaagc
 481 tagcggaggt gattctgaaa aaacagcagg cgccctaga aagaacagtc catccaaca
 541 gccccggcat tccctacaga accctggagc cctggagac ggaaggagcc acccgctcca
 601 tgcacagcag cttttgct cctgttcca gcctgccag tgaccccca gacacttcc
 661 ctctgcgcaa gacagtct gageccaacc tgaagctgc ctataagccc aagaagtccc
 721 tggagcggag gaagaatcca ctgctcga aggagagtgc gccccccagc ctccggcggc
 781 ggccgcaga gacctcgga gactctccc caagtagtag cagcacgccc gcatcagggt
 841 gcagctccc caatgacagc gagcacggcc ccaatccat cctgggcgac agtgaccgca
 901 ggacccatcc gactctggc cctcgggggc caatctggg gagccccac actccctct
 961 tctgcccga tggttggag cccgaggctg ggggcaccti gccctctgc ctgcagcca
 1021 ttctctct ggaccccca ggtctcatg ccccgctgt gactgtgcc gggcttggg
 1081 ccttgcctt cactttgcc cagctctaa tgaccaccga gcgctctct gggtcaggcc
 1141 tccactggc actgagccg actcgtcag agccctgcc cccagtgcc accgtcccc
 1201 caccgccggg cccatgcag ccccgctgg agcagctcaa aactcaagtc cagtgatca
 1261 agaggtcagc caagccgagt gagaagcccc ggctgcggca gataccctcg gctgaagacc
 1321 tggagacaga tggcggggga ccgggccagg tggtagcga tggcctggag cacagggagc
 1381 tggcccatgg gcagcctgag gccagaggcc ccgctctct ccagcagc acctcaggtg
 1441 tgcctggga acagcagcga ctggtgggc ggctccccc gggcagcacc ggggacactg
 1501 tgcctgtcc tctggcccag ggtgggcacc ggctctgt ccgggctcag tcttcccag
 1561 ccgcaactgc ctactgtca gcccagagc ctgccagcca ggcccagtc ctctccagt
 1621 cagagacccc tgccaggacc ctgccctca ccacagggt gatctatgac tgggtcatg
 1681 tgaagacca gtctctgc ggtgacaaca gcaggcacc ggagcacgcc ggccgcatcc
 1741 agagcatctg gtccggctg caggagcggg ggctccggag ccagtgtgag tcttccgag
 1801 gccggaaggc ctccctggaa gagctgagc cggtccactc tgagcggcac gtgtctct
 1861 acggcaccaa cccgtcagc cgcctcaaac tggacaacgg gaagctggca gggctcctgg
 1921 cacagcggat gtttagatg ctgctctgt tgggggttg ggtggacact gacaccatct
 1981 ggaatgagct tcatctccc aatgcagccc gctgggccgc tggcagtgt actgacctg
 2041 ccttcaaagt ggtctctgt gagctaaaga atggttgc tgtggtgcgg ccccaggac
 2101 accatgcaga tcatcaaca gccatgggt tctgtctt caactcagt gccatgcct
 2161 gccggcagct gcaacagcag agcaaggcca gcaaggccag caagatctc attgtagact
 2221 gggacgtgca ccatggcaac ggcaccagc aaacttcta ccaagacccc agtgtctct
 2281 acatctccct gcatgccat gacgacggca acttctccc ggggagtggg gctgtggatg
 2341 aggtaggggc tggcagcggg gagggcttca atgtcaatg ggcctgggt ggaggtctgg
 2401 accccccc atggggatct gattacctg ctgtttcag gatagtcgt atgcccacg
 2461 cccgagagtt ctctccagac ctagtctgg tctgtctgg attgatgt gctgagggtc
 2521 acccgcccc actgggtggc taccatgtt ctgccaaatg ttttgatac atgacgcagc
 2581 aactgatgaa cctggcagga ggcgagtg tctggcct ggagggtggc catgacctca

Figure 7A (sheet 1/2)

2641 cagccatctg tgacgcctct gaggcctgtg tggctgctct tctgggtaac aggttgatc
2701 cctttcaga agaaggctgg aaacagaaac cccaacctca atgcatccg ctcttgag
2761 gccgtgatcc ggggtcacag taaatactgg ggctgcatgc agcgcctggc ctctgtcca
2821 gactcctggg tgcctagagt gccaggggct gacaaagaag aagtggaggc agtgaccga
2881 ctggcgtccc tctctgtggg catcctggct gaagataggc cctcgagca gctggtggag
2941 gaggaagaac ctatgaatct ctaaggctct ggaacctct gccgcccac catgcccttg
3001 ggacctggtt ctctctaac cctggcaat agccccatt cctgggtctt tagagatct
3061 gtgggcaagt agtgggaacc agagaacagc ctgcctgctt tgacagtat ccaggggagc
3121 gtgagaaaat c (SEQ ID No: 14)

FIGURE 7B
(sheet 2/2)

090753.0301
090753.0301

1 meepeepads gqslvpvyiy speyvsmcde lakipkrasm vhsleayal hkqmrivkpk
61 vasmeematf htdaylqhlq kvsqegdddh pdsieyglgy dcpategifd yaaaiggati
121 taaqclidgm ckvainwsgg whhakkdeas gfcylndavl gilrlrrkfe rilyvdlldh
181 hgdgvedafs ftskvmtvsl hkfspgffpg tgdvsdvglg kgryysvnpv iqdgigdeky
241 yqicesvlke vyqafnpkav vlqlgadtia gdpmcsfnmt pvgigkelky ilqwqlatli
301 lggggynlan tarcwtyltg vilgktilse ipdhefftay gpdyvleip scrpdrneph
361 riqqilnyik gnlkhvv (SEQ ID NO:15)

FIGURE 8A

FIGURE 8A

1 gaaatcggc acgagctcgt gccgaattcg gcacgagaac ggtttaagc ggaagatgga
61 ggagccggag gaaccggcgg acagtgggca gtcgctggtc ccggtttata tctatagtc
121 cgagtatgtc agtatgtgtg actccctggc caagatcccc aaacggggcca gtatgggtga
181 ttcttgatt gaagcatatg cactgcataa gcaaatgagg atagttaagc ctaaagtggc
241 ctccatggag gagatggcca ccttccacac tgatgcttat ctgcagcatc tccagaaggt
301 cagccaagag ggcgatgatg atcatccgga ctccatagaa tatgggctag gttatgactg
361 ccagccact gaagggatat ttgactatgc agcagctata ggaggggcta cgatcacagc
421 tgcccaatgc ctgattgacg gaattgtcaa agtagcaatt aactggctcg gaggggtggca
481 tcatgcaaag aaagatgaag catctgggtt ttgttatctc aatgatctg tcttgggaa
541 attacgattg cgacggaaat ttgagcgtat tcttctactg gatttggatc tgcaccatgg
601 agatgggtga gaagacgcat tcagtttcc ctccaaagtc atgaccgtgt ccctgcacaa
661 atttcccca ggattttcc caggaacagg tgacgtgtct gatgttggcc tagggaaggg
721 acggtactac agtgtaaatg tgccattca ggatggcata caagatgaaa aatattacca
781 gatctgtgaa agtgactaa aggaagtata ccaagccttt aatcccaaag cagtggctt
841 acagctggga gctgacacaa tagctgggga tcccatgtgc tctttaaca tgactccagt
901 gggaaattggc aagtgtctta agtacatct tcaatggcag ttggcaacac tcattttggg
961 aggaggaggc tataaccttg ccaacacggc tcgatgtctg acatactga ccgggggtcat
1021 cctaggggaa acactatct ctgagatccc agatcatgag tttttcacag catatgttcc
1081 tgattatgtg ctggnaatca cgccaagctg ccggccagac cgcaatgagc ccaccgaa
1141 ccaacaaatc ctcaactaca tcaaaggga tctgaagcat gtggtctagt tgacagaag
1201 agatcagggt tccagagctg aggagtgggt cctataatga agacagcgtg ttatgcaag
1261 cagtttggg aatttggac tgcagggaaa atttgaaaga aattacttcc tgaaaatttc
1321 caaggggcat caagtggcag ctggcttct ggggtgaaga ggcaggcacc ccagagtcct
1381 caactggacc taggggaaga aggagatct ccacattta agttcttatt taaaaaaca
1441 cacacacaca aatgaaattt ttaactttg aaaattattt ttaagcgaat tggggagggg
1501 agtattttaa tcatctttaa tgaacagat cagaagctgg atgagagcag tcaccagtt
1561 gtagggcagg aggcagctga caggcagggn tngggcctn ggaccancca ngtgaggccc
1621 tgggagagan ggtactgac ngcagactgg gagg (SEQ ID NO:16)

FIGURE 8B

Figure 9A

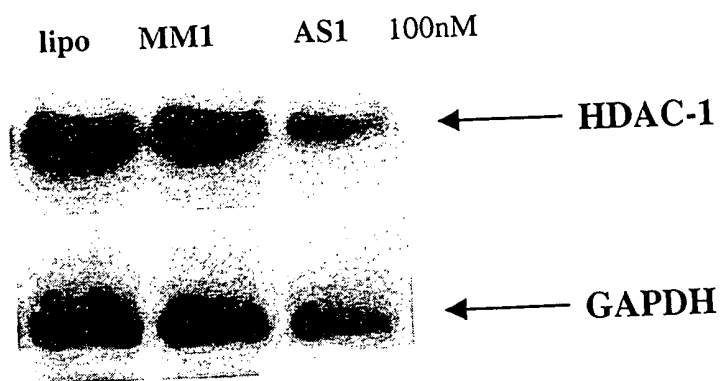


Figure 9B

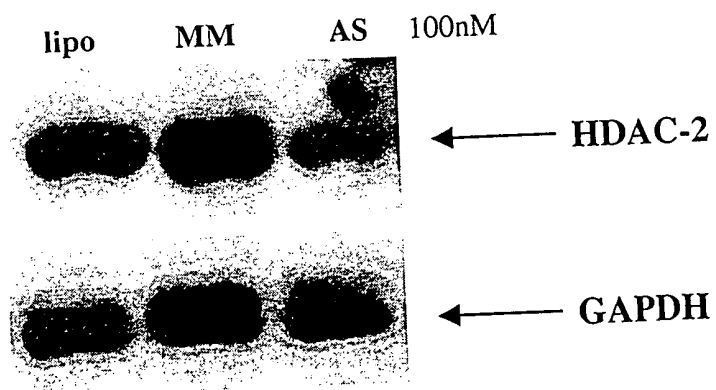
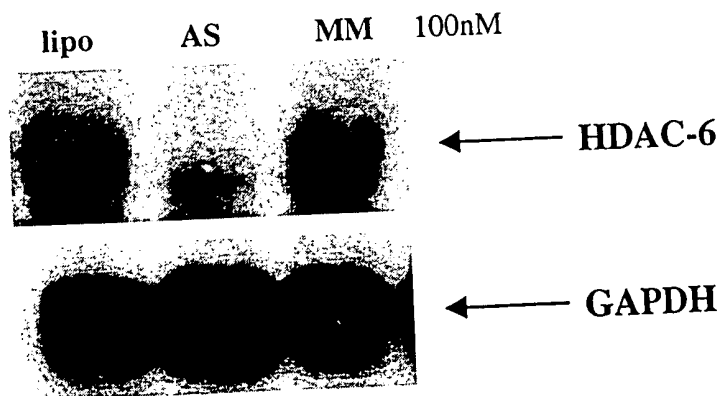


Figure 9C



00047538.0000

Figure 9 D

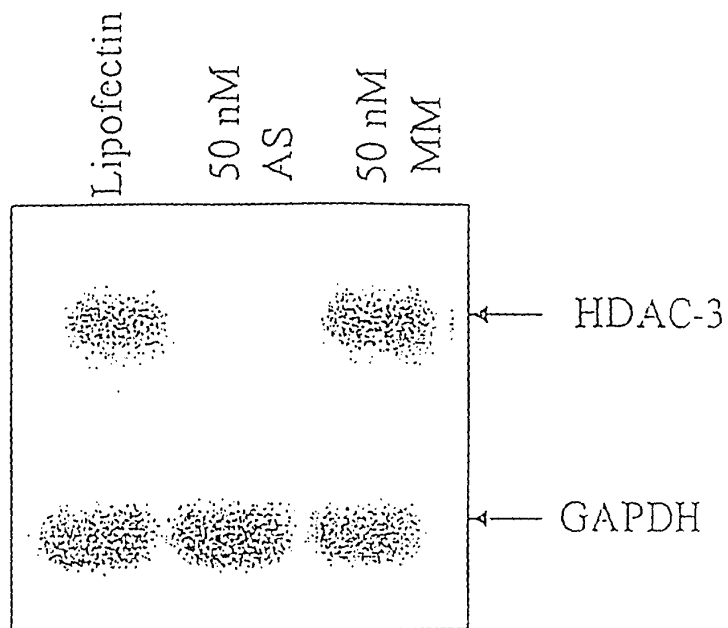


Figure 9 E

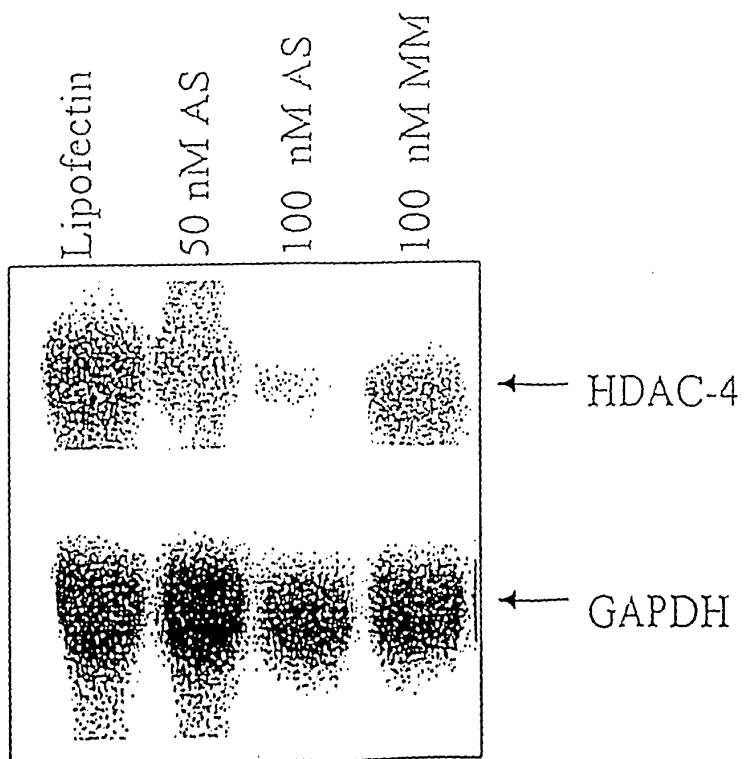


FIGURE 9 F

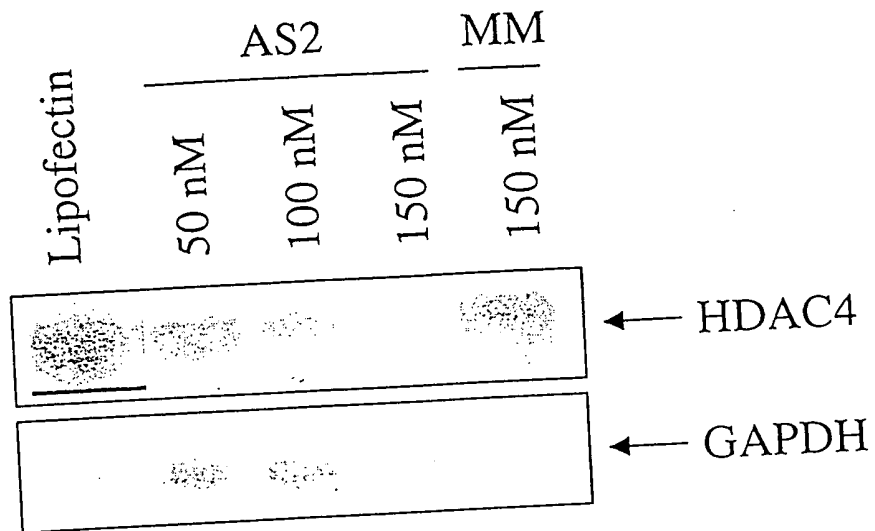


FIGURE 9 G

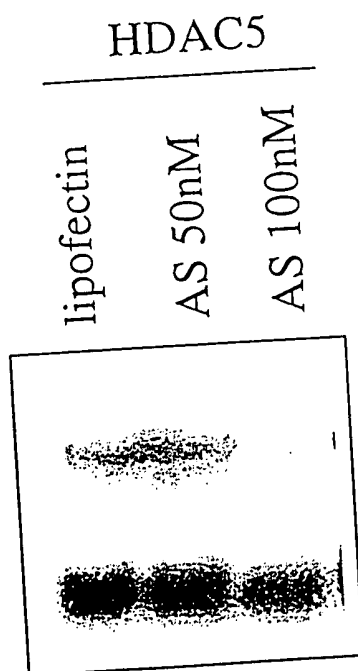
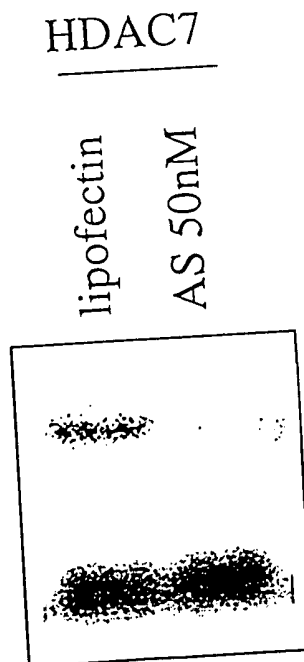


FIGURE 9 H



109220' 85521600

Figure 9I

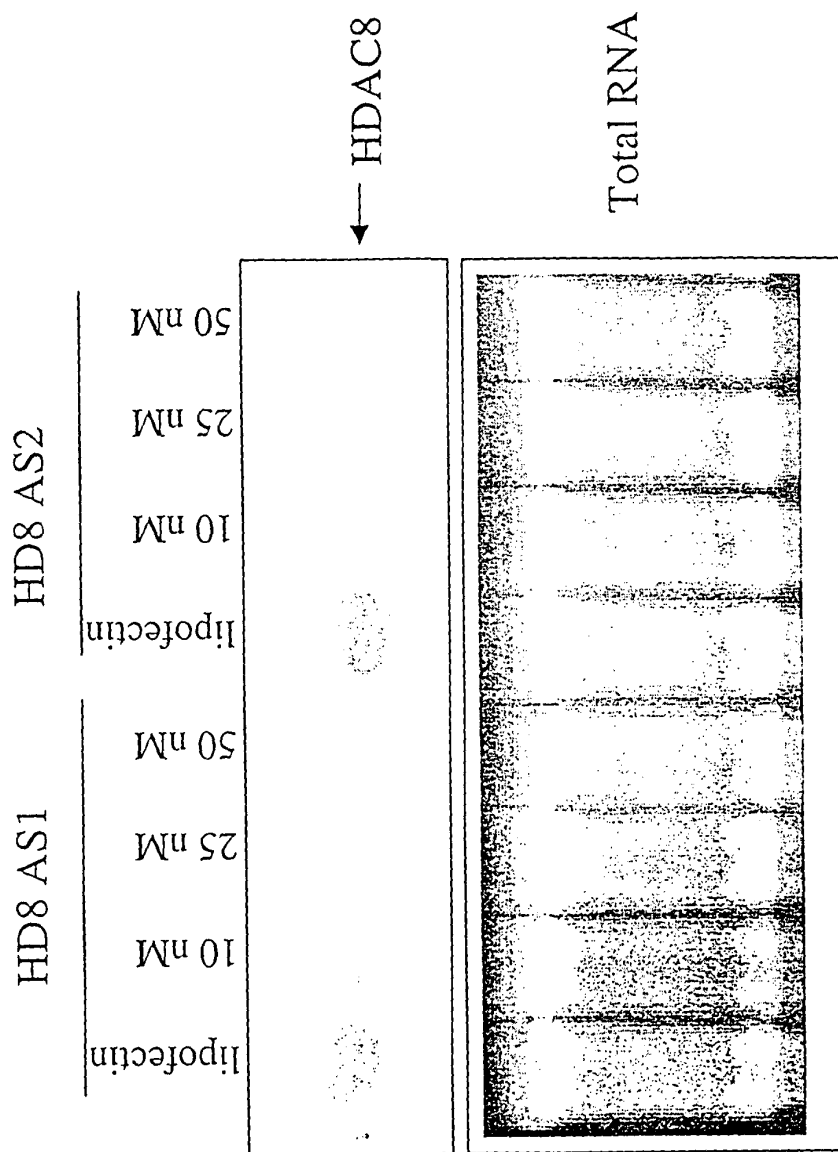
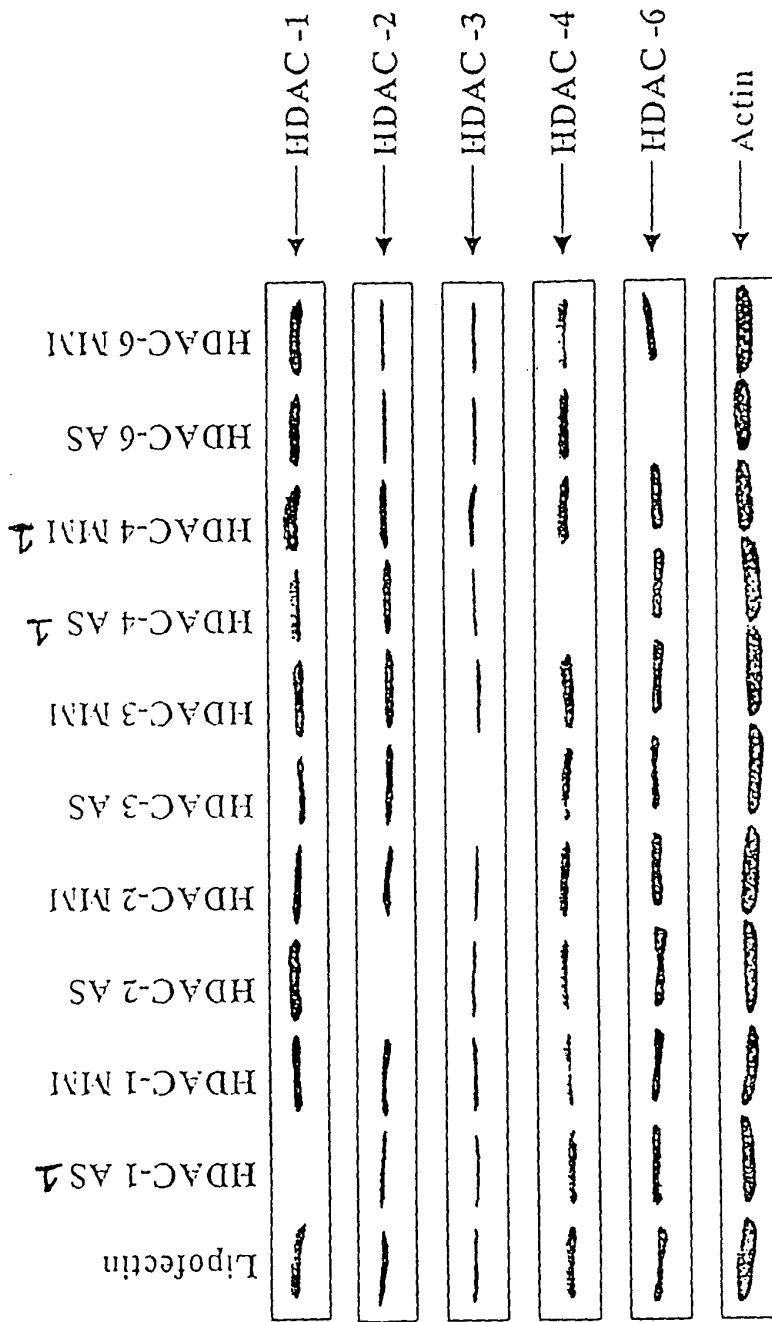
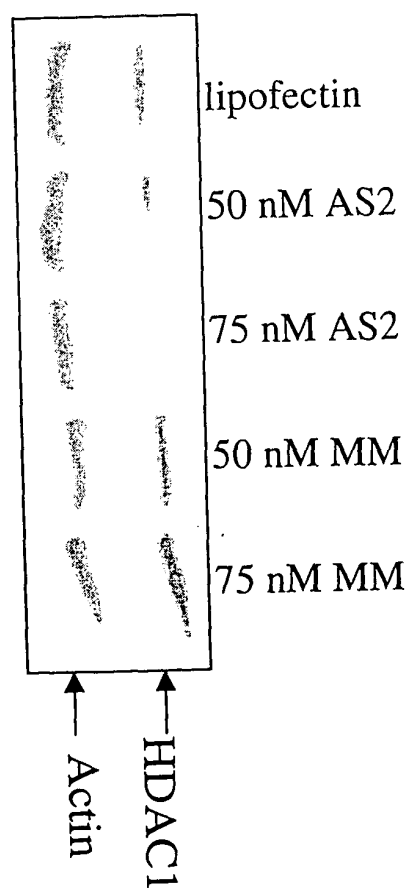
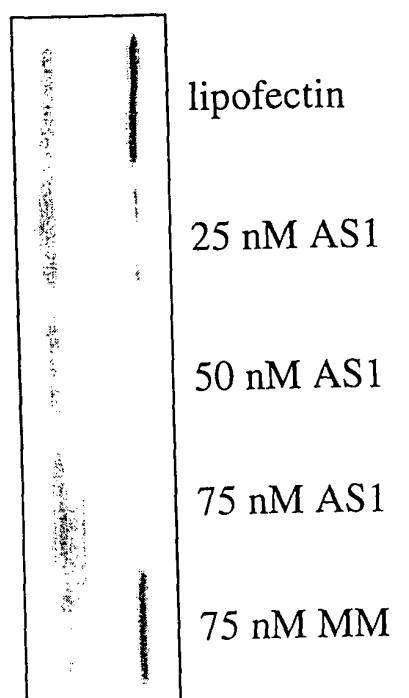


Figure 10 A



AS = Antisense
 MM = Mismatch
 NS = Non-specific control
 3 day treatment
 Oligonucleotide conc. = 50nM

FIGURE 10B



00047538.033604

103220" 52527800

FIGURE 11

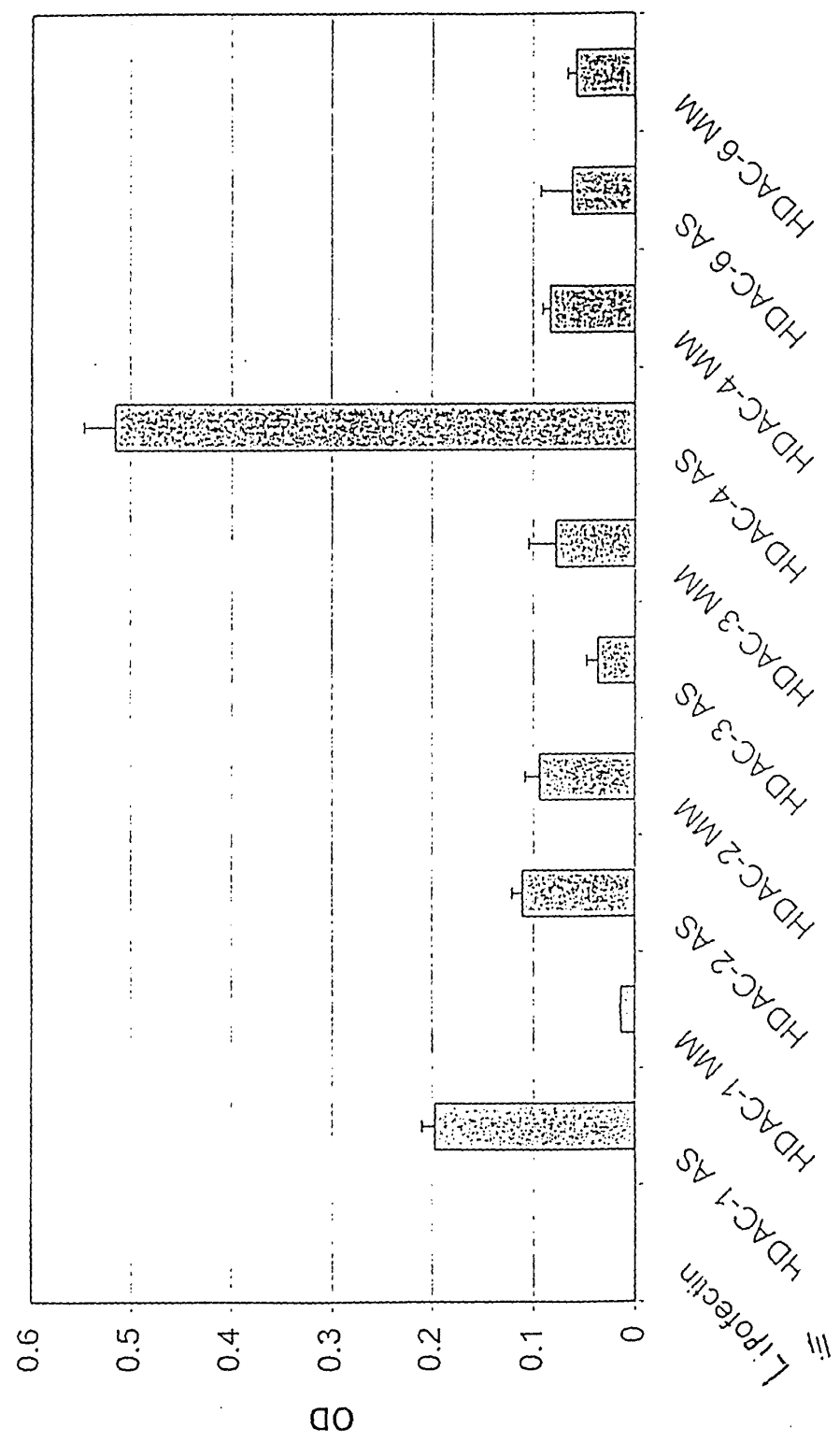


FIGURE 12A

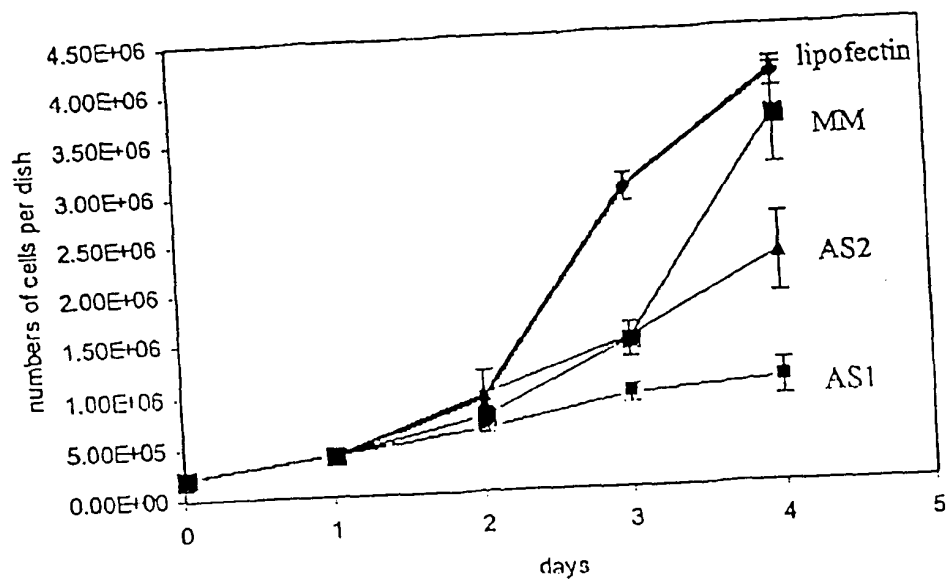
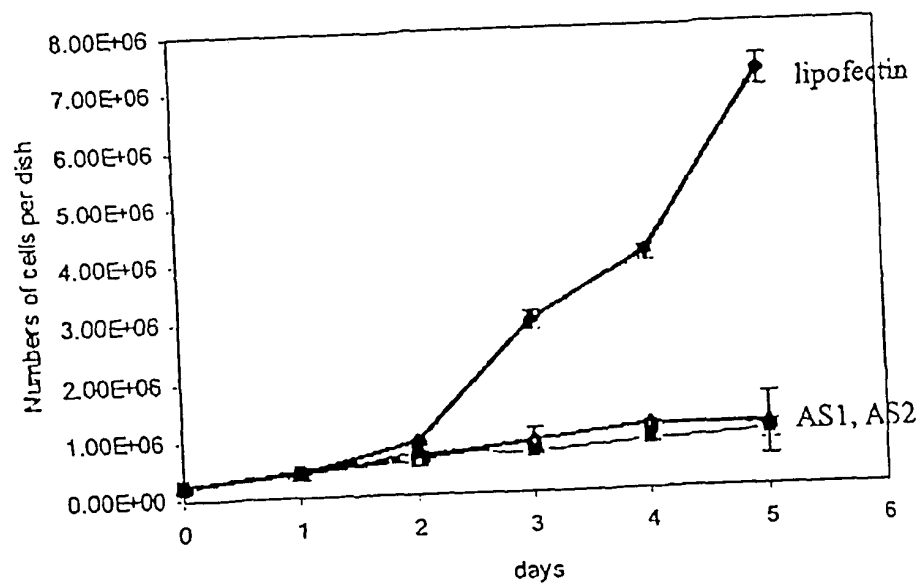


FIGURE 12B



% of Cells with DNA content ($\geq 2N$)

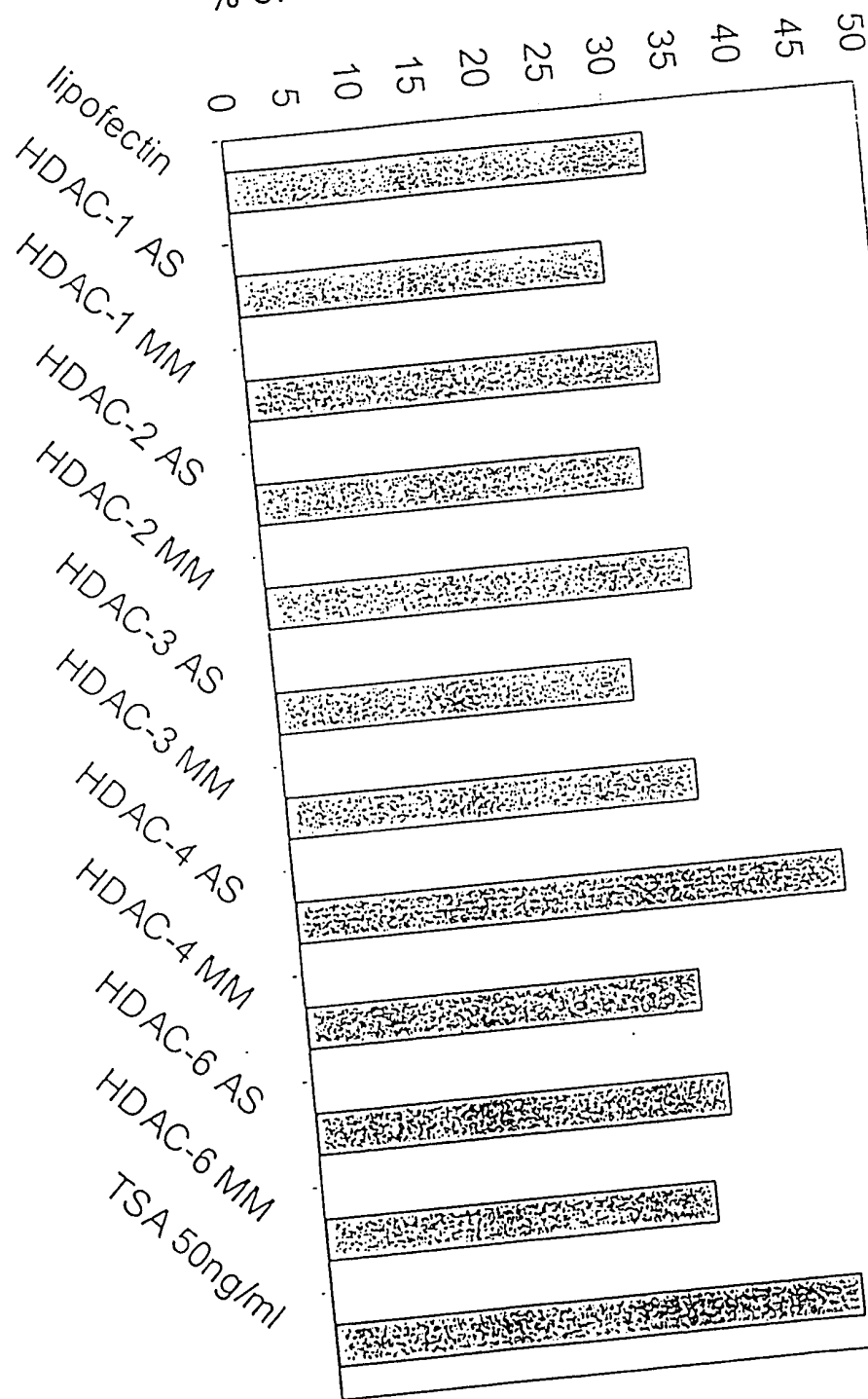


FIGURE 13

00817530.032604

FO9220*02547860

FIGURE 14

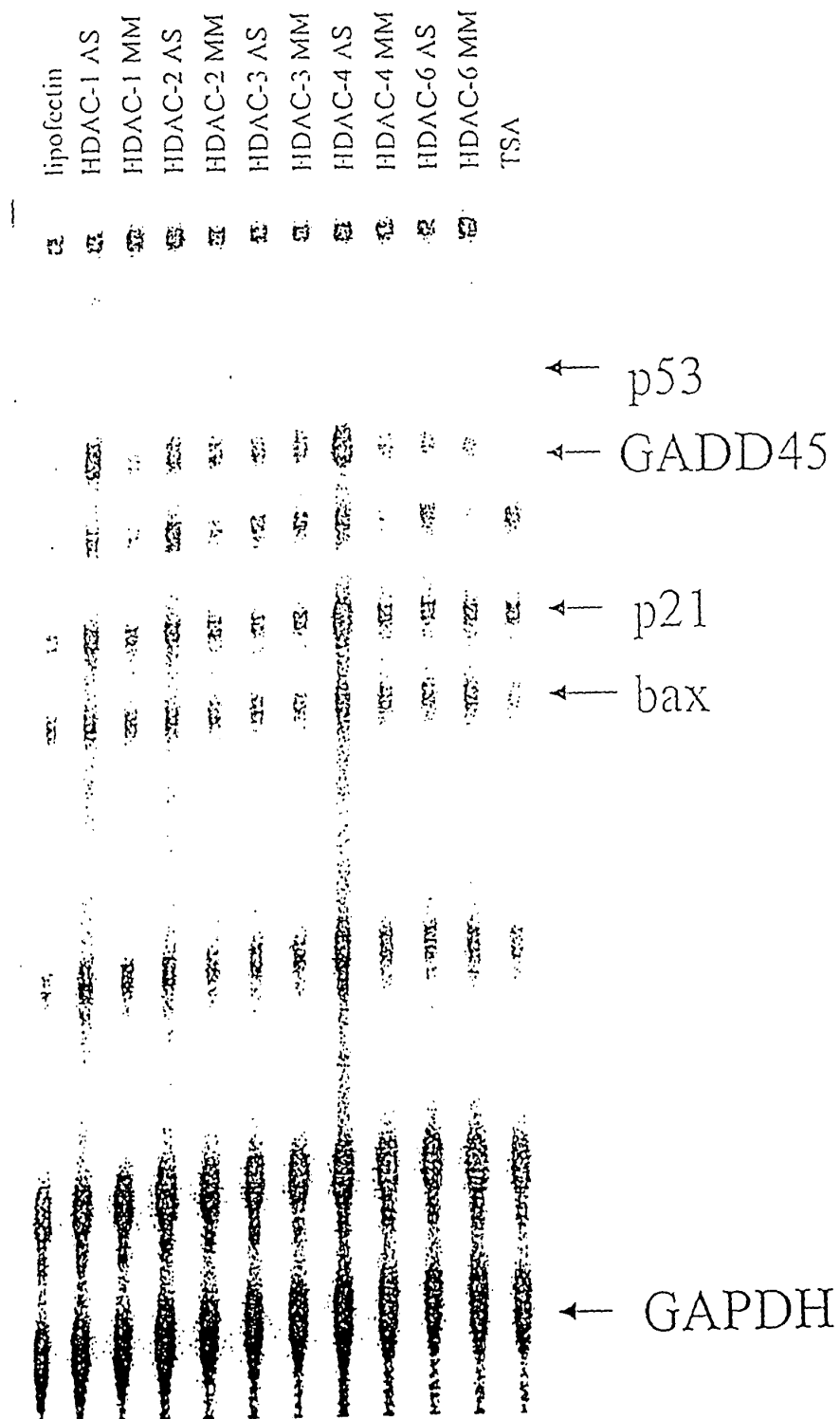


FIGURE 15

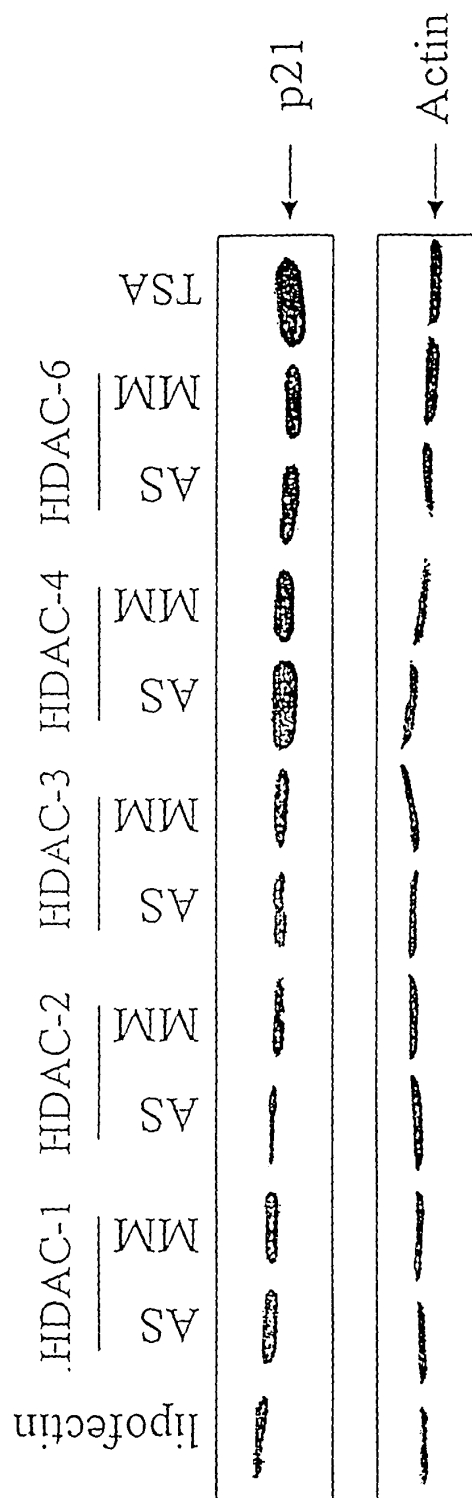
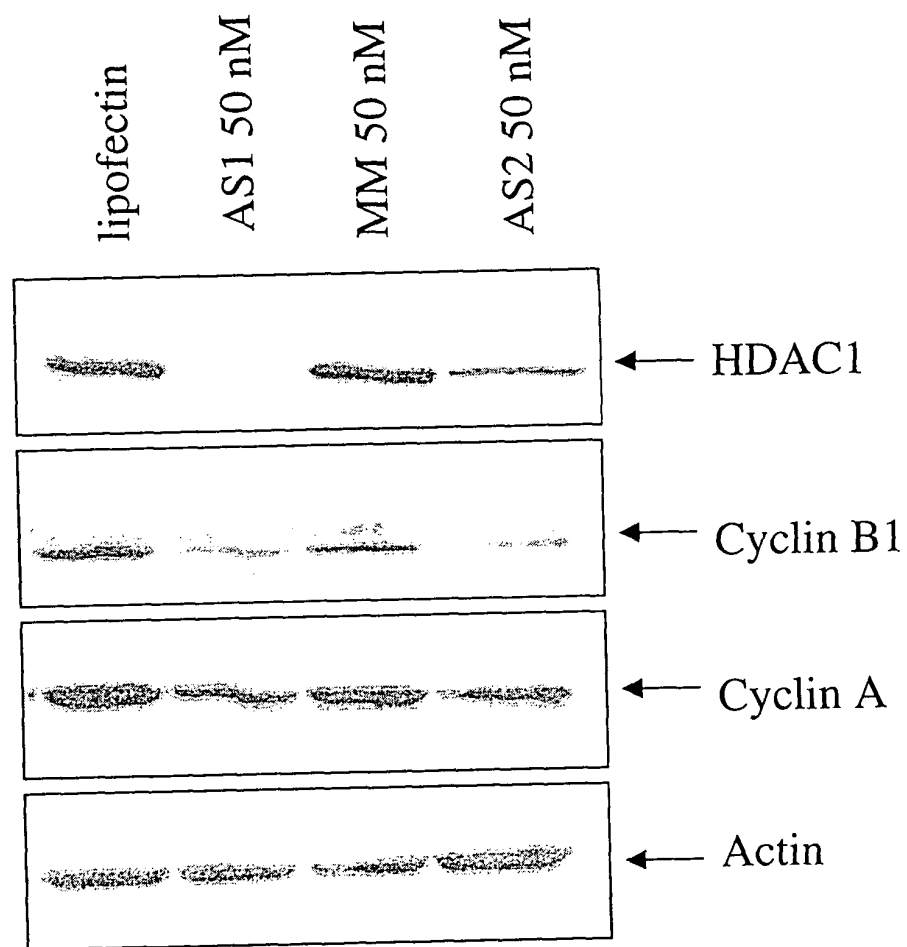
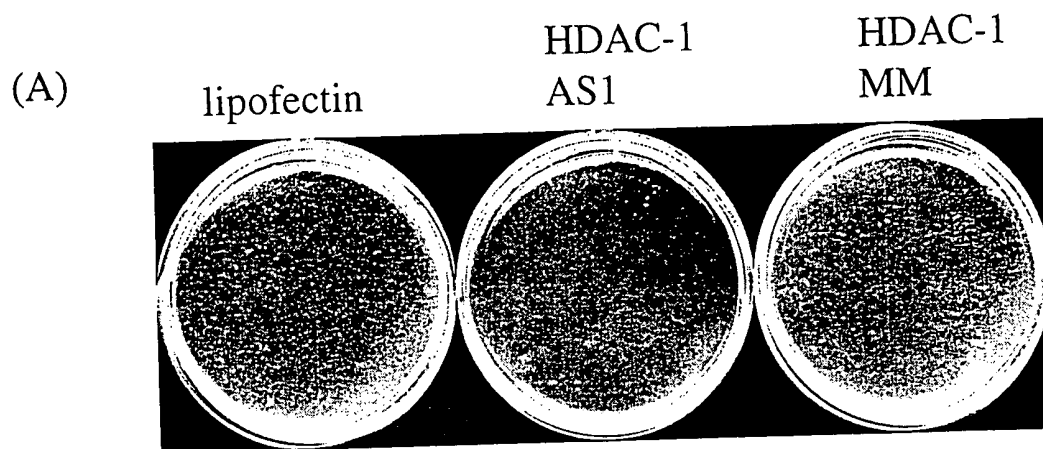


FIGURE 16



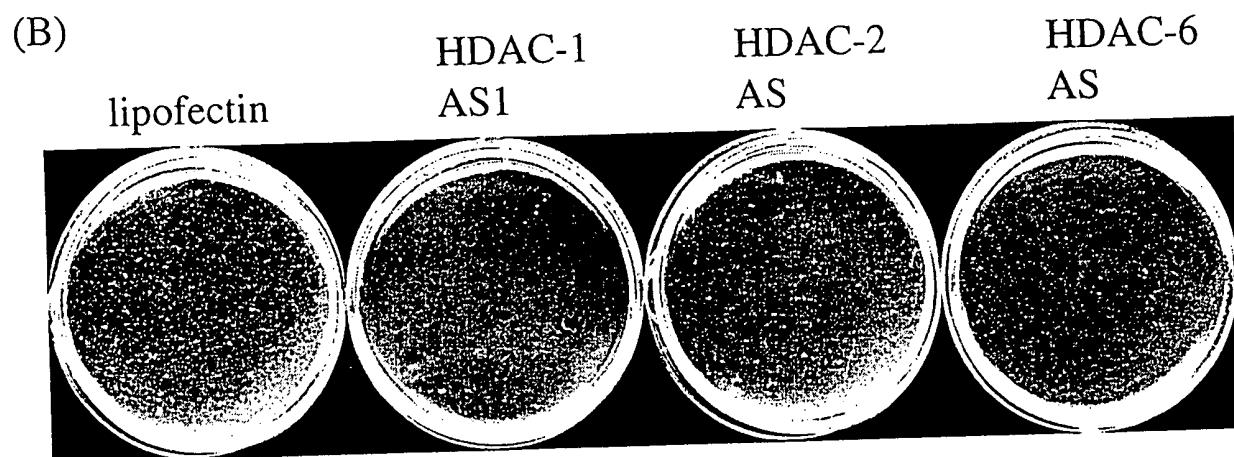
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Figure 17



Colony
Numbers

~1200 ~120 ~1160



Colony
Numbers

~1200 ~120 ~890 ~730